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A

OBSERVATIONS
ON THE
ART of BREWING MALT LIQUORS,

In a Series of STRICTURES
On a *SECRET SYSTEM* inculcated in
A PRIVATE COURSE of
LECTURES on BREWING,

Lately delivered to several eminent Initiates
In that *MYSTIC MODE* of Practice;

To whose Perusal they are particulariy Dedicated

By a PRACTICAL BREWER.

Anon. O. 43.

Semper ego auditor tantum? nunquamne reponam?

Juv.

L O N D O N:

Printed for I. WILKIE, No 71, St. Paul's Church-Yard;
I. SEWELL, Successor to Mr. BROTHERTON, Cornhill;
and W. DOMVILLE, under the Royal Exchange, 1775.

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ON THE

ON THE

ARTS OF BREWING MALT LIQUORS

IN THE ARTS OF BREWING

ON A SECRET SYSTEM INVENTED IN

A PRIVATE COURSE OF

LECTURES ON BREWING

AND DELIVERED TO A SELECT AUDIENCE

IN THE METRIC MODE OF MEASUREMENT

THESE LECTURES



Printed by J. G. & Co. Stationers, 15, Abchurch Lane, London, E.C. 4.

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Printed and Published by J. G. & Co. Stationers, 15, Abchurch Lane, London, E.C. 4.
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OBSERVATIONS
ON THE
ART OF BREWING, &c.



It is judiciously asserted by a certain Right Reverend author, that *nothing is more difficult than to give a demonstration in form of a proposition almost self-evident*. On the contrary, it may be said, that *nothing is more easy than to build a hypothetical system on a matter not demonstrable by rules of art*. How far the truth of the latter observation will be evinced in the following pages the reader will best determine, after he has perused them; and whether a consideration like the former has hitherto prevented the good old dames of Yorkshire, long celebrated for their skill in the *encheiresis* * of brewing fine ale,

* Vide advertisement entitled *A Syllabus &c.*"

from communicating *scientifically* their practice to the cloudy pates of the more southern professors of brewing, I know not; but it has not occurred to me, in the whole course of my extensive researches into this matter, that any of these ladies ever published a *systematical, theoretical, and chemical* treatise on brewing, or ever had the public spirit *to read lectures* on the practicability of making *Yorkshire ale* in the county of Middlesex.

IF we admit the probability of their good inclinations to oblige the world in either of these particulars, it is evident that the only intervening obstacle was the difficulty of communication, for their mode of practice is simplicity itself. Give the experienced dames but good malt, hops, and water, and they will brew you the sparkling beverage, with the greatest facility; but ask them *how* they arrive at such excellence, and you will soon be convinced that they are no *chymists*. This is a circumstance the more to be lamented, as it is now reduced to chemical certainty, that though an old woman may make very
fine



fine ale, it is from the chymist only that we are to be taught the *whys and wherefores* of her practice; and that it will not signify a farthing to a brewer, to be able to dazzle the eye, delight the palate, and exhilarate the mind with his liquor, since no person of understanding will credit the testimony of their own senses, or believe it to be *good*, unless he can, like Dean Swift's ordurous philosopher, restore it to its primitive component parts, trace every cause from every effect, deduce every effect from every cause, and *prove* it to be good, *secundem artem*.

THIS is the business of the chymist, and unless the brewer will unite the brewhouse with the laboratory, he may scald his fingers in his worts, and I will not believe they were hot, unless he can *demonstrate* that there was *heat* in them.

The brewer founds his success merely on confirmed experience; the chymist on profound analysis and dogmatical hypothesis. The brewer is satisfied to find, that by taking his liquors at a certain heat, with a certain kind of malt, and conducting his fermentation in a certain manner, and to

a certain period, he can produce a certain kind of beer, other particulars being regulated accordingly. The chymist goes a much nicer way to work. With his *chemical key* * he unlocks every door of the principles of brewing. He can walk at large in a kernel of malt, like Shakespear's Queen Mab, sail over the surface of a boiling wort, like the Nautilus, on a hop-leaf, and securely visit every corner of a fermenting must, in an air bubble. Hence the important discovery of the *brewer's philosopher's stone*, which, in despite of all the learned researches and long practice of Mr. Combrune, who, it seems, has all his life inadvertently *sucked the wrong end of the asparagus* †, with the united efforts of many other less philosophical heads, has been reserved for that phænomenon of chemical knowledge, that prodigy in the brewing science, H. J——, Esq; F. R. S. *Justice of the Peace for the county of Middlesex*, and Grand Master of the *Secret Society of Brewers*, founded by himself, and by his *art* supported. His, then, be the

* Vide *Preliminary Address*.

† Vide Preface to *Jackson's Treatise on Isinglass*.

immortal

immortal honour of the discovery ; but, for the *emoluments*, let them flow securely into the gaping pockets of his *Sir Epicure Mammons* (amongst the most unworthy of whom I have the honour to be numbered) for his great soul despises *little* pecuniary gratifications, dispensing knowledge with a liberal hand, as Ashley does punch, *Pro Bono Publico*.

It is the possession of this golden secret that has made a very *Midas* of every one of the the chemical brewers, pupils of the lecturer. Let not the witling sneer at this, and, with a farcastic insinuation, quote Boileau upon us :

Midas, le roi Midas, a des oreilles d'ane.

We defy the malice of so perverted an application, and appeal to the productions of our chemical professor, the lecturer, for proofs of our own powers in that God-given art, whence we assume the appellation. He needs but give the magic touch, and all is changed to gold. When common brewing mortals have drained all their materials to a husk, and are at their *ne plus ultra* ; by a dextrous manœuvre,

manœuvre, or *chemical encbeirisis*, he performs the wonders of the wonder-working bee, extracting honied sweets from fetid flowers. With a handful of expressed hops, or exhausted grains, he stands aloft opposed to Jove himself, and pours a golden shower upon the world. Conviction follows his creative hand, and infidelity itself exclaims

— *Arentes Cereris decerpit aristas,*
AUREA messis erit !

OVID

These are great and uncontrovertible truths, of which any person may be convinced by *initiation*, which will at once put him into the possession of all the desiderata of the brewing art, and teach him the grand arcana of these our chemical mysteries. And surely there is no brewer so bigotted to the fog of ignorance, as not to wish our sunshine of science to dispel it, or so unambitious, so unattentive to his own interest, as not to pant after the acquisition of our *philosopher's stone*, when the purchase is so very easy as 50 or 60 ounces of amalgain only; for which a few experiments will soon reimburse him, provided he is careful
in

in his processes to guard against evaporations *in fumo*.

As to myself, however, I must acknowledge that, having been for some time under the influence of a certain old woman, famous for brewing, perhaps, the finest ale in the kingdom, I have got such a grovelling habit of making very fine, untheoretical ale, and have met with so much approbation for it amongst the ignorant unchemical beer-bibbers, who form the bulk of the English nation, that really I have no longer any ambition to soar in the sublimer heights of chemistry; but, quitting those dangerous precipices which mark the road to fame, am content to descend again to the level of mankind, pleased with the humble satisfaction of being able to produce, with certainty, the spumy liquor, "sweet to the sense and pleasing to the eye," without the risque of evaporations *in fumo*, to which chemical processes are extremely liable.

With these prejudices, I have thought it incumbent on the impartiality I profess, to make the reader acquainted, previous to my entering on the remarks which are to form the subject of the subsequent pages,
that

that no one may hereafter alledge against me, that I produced *effects* without a *cause*, or that I have here and there preferred the *encheiresis* of *experimental*, to the *analysis* of *hypothetical* brewing, without a reason. Nor would I hence have it understood, that I mean to make profelytes to the practice of unlearned brewers, at the expence of the theory of learned chymists. No; let brewers be chymists, that chymists may be brewers. The extent of human knowledge is so exceedingly circumscribed, that none can know too much; and, as we have the learned and unlearned fitly distinguished in every country, it appears somewhat essential that the professors of every particular art should be discriminated by a similar distinction; that those who have explored every secret, and peeped into every hole and corner, cranny and crevice, of their profession, may receive the honorary reward of their industry, in the pre-eminent appellation of *learned*, whilst those who will not venture out of broad day-light and the beaten track, may grovel on in their primitive ignorance, unhonoured, undistinguished. Every brewer,
therefore,

therefore, who would wish to reach this summit of our art, must be *learned* in the art; and no man can be thus learned, without he be *let into the secret*; a requisite attainable only by an initiation into those hidden mysteries which form the bulwark of our lecturer's valuable hypotheses, and the *sine qua non* of his theory and practice. When he has thus revelled awhile in the flowery paths of chymistry, when the new-born sweets have satiated the appetite, and *novelty palls upon the sense*, he may descend with me to the humble vale of experience, compleat his studies by blending my *useful* with the lecturer's *entertaining*, and felicitate himself in the words of Horace:

*Omne tulit punctum qui miscuit UTILE
dulci.*

I shall now proceed to animadvert on the lecturer's advertisement, called a SYLLABUS*, or *Heads of a private Course of Lectures*, &c. which I mean to do with all the deference due to his great talents, with all the candour his sentiments deserve, and with all the justice he has a right to expect from one *so well acquainted with him*

* *Anglice Syllabus*, a frothy substance.

as myself ; assuring him with Othello, that
I will

*Nothing extenuate, nor set down aught in
malice.*

We first come to the

PRELIMINARY ADDRESS.

IN this the lecturer says, “ As brewing
“ is a chemical process through all its
“ parts, or rather malt liquor a com-
“ pound resulting from several processes de-
“ pendant on each other, it is evident that
“ *from the CHEMICAL SCIENCE alone, all*
“ *knowledge relative to the natural proper-*
“ *ties and effects of brewing matters must be*
“ *ultimately deduced, but these properties*
“ and effects can never be ascertained
“ *without the aid of EXPERIMENTS, which*
“ are the best interpreters between specu-
“ lation and practice.”

However I may be inclined to favour the
former of these positions, which indeed has
much of truth in it, so far as natural ef-
fects may be ascertained from known
causes, yet, in the present instance, I am
obliged to avow its fallibility. To ac-
quire a perfect knowledge of the compo-
nent

nent parts is undoubtedly the most likely means to attain the certain power of regulating the product, and the acquisition of that knowledge can only be the result of analysis; but is it thence to be inferred that every hypothetical investigation shall bear the name of analysing, or that even a perfect analysis shall be deemed the infallible means of excellence in the product? We may analyse the parts, and still be ignorant of their combined actions and powers; whence a system may be formed that may counteract the end proposed, and produce effects directly opposite to those sought after. With every just material, and on the firmest foundation, actuated by a wrong principle, we may build till the structure tumble about our ears by its own weight.

The concluding part of the paragraph I most cordially agree to, except that I could wish to make a small interpolation, and insert *experience* in the place of *experiments*; for there appears to me a material difference in the acceptation of the two words, on the present occasion. It is an uncontrovertible truth, that "from experiment

“ a *true theory* must be looked for, which
 “ will naturally lead back again to the *most*
 “ *useful and successful practice* ;” but these
experiments, it must be confessed, are not
 to be made in the *proof-glasses* in the lec-
 turer’s parlour, with a probability of their
 application to the *successful practice* of the
 brewer. It is enough that they afford
amusement, whilst the lecturer is deliver-
 ing his orations: *experience* the pupil can
 only expect to find in his own office.

I must also acknowledge the apposite
 prettiness of the thought, where the lec-
 turer says, “ The materials of brewery
 “ are in every one’s power, but, as in
 “ well-tuned instruments, the manner of
 “ handling them *to advantage* is known to
 “ few ;” nor will I do him so much injus-
 tice as to say, he is not possessed of that
manner, in a very eminent degree ; for I
 believe I can *prove*, that, take them all in
 all, he has *handled* them more *advantage-
 ously* than any man in the kingdom. Yet
 I do not mean to take this *encheiresis* of
 his out of his own parlour, for that would
 be to destroy the fine effect of his experi-
 ments, whose excellencies are entirely lo-
 cal,

cal, and which (to pursue the musical idea) produce an effect in the brewhouse, somewhat similar to the execution of a person, always accustomed to practise alone, joining in a concert. His solo music might be pleasing enough to himself, without meaning an imputation on the delicacy of his ear, though he were to make no *rests*, and now and then play *crotchets* for *quavers*; but there he must stop, for he would but *grate harsh discord on the ear*, in blending his incorrect sounds with the chaste harmony of *professors*.

The inefficacy of these miniature processes might be evinced on many occasions, but that I fear the entire petrefaction of the lecturer with wonder would inevitably attend the relation, and I am apprehensive of setting him *all a gape*, in the single intimation of the very different effects of different quantities in the article of fermentation, and how impracticable it is to fix a general criterion, when an appearance is to be sought for, various as the quantity of the must, or the fermenting heat, or as the former part of the process has been varied. But I am afraid I have
said

said too much in opposition to these entertaining baubles, which, as I am a lover of hobby-horses, I should be sorry to see entirely exploded. The *experiments of the closet* are sufficiently instructive to *parlor brewers*, but without the confirmation of general practice, the brewhouse will reap but little advantage from them.

The lecturer, from adhering a little too rigidly to his favourite principle of universal laws, has been led to assert that "it is *easily demonstrable* that locality has nothing to do with the characteristic of beers, and that all kinds of malt-liquors may be obtained *in equal perfection in all places* which will admit of similar materials and fermentation." Now in this *similarity of materials* a carping critic would be apt enough to discover a quibbling salvo. If the lecturer, he would say, will admit that all places in England, where there is pond or river water, malt, and hops, afford these *similar materials*, and does not mean to insinuate that one water, fit for culinary purposes (which also includes brewing) is not *similar* to another of the
same

same utility, I do, with both hands, put in a negative plea to his assertion.

“ The operator, adds the lecturer, not “ the elements, stands accountable for the “ requisite qualities of beers.” This, also, as far as general principles are concerned, cannot be admitted ; for though it must be acknowledged that we pupils, in very different parts of the kingdom, by a *uniformity* of practice, have obtained a produce *very similar* to each other’s, it will not have much weight with the generality of brewers, who are apt to conclude that these *requisite qualities* should be *good qualities*, and simply enough expect universal excellence instead of *uniform imperfection*.

A confirmation of local influence in the produce of beers has, unfortunately for the lecturer’s system, lately come under my own observation. A practical brewer, very much and very justly celebrated for the superior pellucidity, spirituosity, flavor, and even fragrance of his beers, can only arrive at that perfection in the town where he resides. He has practised in several other places, but has only been able to preserve the spirit and transparency of
his

his liquor, the admired peculiarity of flavour being, in these places, unattainable, though he invariably pursues the same method. In one particular place he so far failed of success, that, with the strictest adherence to his constant mode of practice, he could not produce any of those fine qualities for which his beer is so famous, and accordingly gave up the attempt.

Here a rash advocate for theoretical brewing would plume himself upon a discovery that I have *proved too much*, and exult in the man's ignorance of the *theory* of his business. But it should be considered, that I do not mean to countenance ignorance, or wish to explode *theory*; without which, especially in different situations, certain excellence cannot be expected; but there is a necessary and essential distinction to be made between the analytical theory the lecturer inculcates, and the better theory he describes; *i. e.* that which results from practice, and again becomes the unerring guide to it. In short, though the operator, in the instance before us, be in fault, we are to ascribe to the elements its origin, the latent causes of which

which it is not in the power of chymistry to develope; and the lecturer must excuse me if, from long practice and experience, I take upon me to declare, that no *general theory* can obviate the error, which is only to be rectified by that theoretical knowledge acquired from various and successful practice, the true test, and only certain criterion of a well-conducted process. This is further evinced in the particular instance I am speaking of, by my having consulted the general defect of the beers of that place, whence ascertaining the cause, I found the brewer's want of success was principally owing to a local circumstance, which having varied accordingly, every desirable effect was produced. Hence it is evident, that though some leading principles and general maxims may be established to advantage, there is an undefinable, unaccountable something in locality, that will baffle all the brewer's art, unless he knows to vary the future process by the present appearance, and give up the system to save the subject.

As it is not my purpose to dwell upon every particular that has flowed from the

D

lecturer's

lecturer's pen, in consequence of his critical enquiries into the *minutiæ* of brewing, I shall come at once to the *peroration* of the *Address*. Here we are told, that "It is evident that *after we are perfectly acquainted with every principle resident in malt and hops, which yield to the impression of water, and the secret springs which influence fermentation, we shall find no difficulty in the encheiresis, or manual part, in brewing all the various kinds of beers, in present esteem, under whatsoever denomination.*"

In the phraseology of this whole paragraph a penetrating genius would discover much *art*, but as I have no pretensions to enter so deeply into abstruse points, nor ambition to be distinguished for my penetration, I shall be content to conclude that the ambiguous terms in which it is couched, if they are not proofs of the author's *excessive modesty*, they do at least wear the colour of that meek virtue's outer garment. First, he thinks it incumbent "to endeavour to demonstrate that malt and hops, under *certain management*, will yield much greater proportions of fermentable

“mentable matter than are generally
 “known, and that their products *may* be
 “made to *square more advantageously* with
 “the intentions of the operator than
 “usual.” A man must have but little of
 the milk of human nature in his compo-
 sition, that could find in his heart to cavil
 at so much *diffidence*; so that whether his
endeavours do really demonstrate, and his
 demonstrations effect the *advantageous*
square proposed, must yet remain a secret
 with the chosen few. Again, *after we*
are acquainted with every principle, &c. we
 shall be able to make London porter at
 Portsmouth, Dorchester beer at Cam-
 bridge, Burton ale in the Isle of Wight,
 and Ringwood at Lynn Regis; but if any
 curious brewer is desirous to know whe-
 ther the lecturer *does acquaint us with*
 EVERY PRINCIPLE, and teach us to per-
 form these miracles, he has only to satisfy
 his curiosity by becoming *one of us*, which
 he may do by a *proper recommendation*, which
 he is to produce previous to his being
made, or initiated into our society; and it
 is a matter that so qualifies, so finishes the
 education of a brewer, that it is astonishing

to me our number is not much more considerable. This may, perhaps, be attributed to some dull soul, some cold genius, who may have peeped into our millstone, and discovered more than there is to discover; who, not daring to credit the evidence of the tempting prospect thus set before him, stands shivering with hesitation, and, with an eye askance to the professors of our art, shrugs up his shoulders, and mutters to himself

Felix quem faciunt aliena pericula cautum.

But it is time to quit these tempting paths, over which the lecturer hath so invitingly scattered all his flowers of language, to catch the wandering inattentive eye. It is time to follow close his scientific steps, whilst with his *chemical key* he unlocks all the storehouses of his knowledge, and guides the wandering mind through all the hidden mysteries of extraction, combination, fermentation, precipitation, pellucidization, &c. &c. Or, in the plainer terms of common mortals, I shall now regularly proceed to give my opinion on the

COURSE



COURSE OF LECTURES.

IN this edifying journey, as I am to be led on by that fair damsel we call Truth, I hope no person will have need to blush at the discovery of her nakedness, as we pass along.

SECTION I.

Here we have “the business of malting
“considered at large, with a comparative
“view of this process in England and foreign
“reign parts; the various defects of malt
“accounted for; the practicability of making
“perfect malt with any sort of fuel,
“without danger of tainting it with a
“disagreeable flavor; an improved construction
“of a malt-kiln described; the
“general management of the grain, *from*
“*the mow to the kiln*, examined; and whether
“the business of the steeping-cistern
“may not be considerably improved, in a
“view to increase the fermentable matter
“of malt.”

At this amazing instance of intuitive knowledge, who can withhold the warmest expressions of astonishment! What penetration! what comprehension! That a person

person who has scarce seen the inside of three malt-houses, in his life, should be able to give you all the different processes of all the different malthouses in Europe, is really surprizing; and too much cannot be said in commendation of such wonderful sagacity. Besides, it is perhaps more than probable, that he never attended the *encheirefs* of one malt-house (unless he has a portable one of his own, in a mahogany case) and yet he can *account for* all the defects of malt, can construct new-fashioned kilns that shall dry malt with old junk, or flames of brimstone, without tainting; he can instruct the farmer how to thrash, the maltster how to steep, when to couch, to turn, to water, and to dry his malt, and all this by mere intuition, for it is not in the nature of things that he can be acquainted with the *art of malting* (however Hermes may have inspired him with the *science*) any more than we are with the Persian language, who do not know the characters. It is moreover a most wonderful circumstance, that a London chymist employed his whole life-time in distillation, calcination, pulverization, culling

ing

ing of simples, transmuting of metals, and commixing of acids and alkalis, should be able to extend his labours to the instruction of the farmer, when it is very probable that he has not enough of the *practical farmer* to distinguish an ear of rye from one of white wheat; and to prescribe rules to the maltster, when it is somewhat less than a doubt that he does not know barley from barley-big. It must be confessed, that though our admiration of the lecturer's astonishing talents, in this particular, is raised almost to enthusiasm, we cannot help being a little alarmed for the safety of so enterprising a genius, who boldly rushes into unknown regions, without passport or guide, and invades the most distant *provinces*, to adorn his own brows with the palm of glory, snatched from the head of unsuspecting science; and, at the same time that we acknowledge the greatness of his enterprize to be equal to that of Phaeton, we are such advocates for moderation, as to wish the admonition of Pliny may not be lost upon the lecturer.

Ne Sutor ultra crepidam.

SECTION

SECTION II.

Treats of the analysis of malt, which is the grand hinge upon which the lecturer's system of brewing turns, and in the circumvolution of which there very unluckily happens to be in the way a grand block, called a blunder, which very fairly lifts his system off the hinge, and overturns it; for, whilst he is separating its saccharine matter, and conserving it for use, with wonderful dexterity, he is, with as profound wisdom, depriving the liquor of a preservative principle he has unfortunately overlooked. But it were the height of arrogance in us, to presume to dictate to the lecturer, or make depredations upon *his province*, as the farmer and maltster say he has done upon their's. We shall therefore resume the analysis, by which the purchaser of malt is to ascertain its quality to the extreme nicety of half a grain of saccharine matter in a comb, and its colour to the exactness of half a shade in a gyle; for this purpose he is to carry in his pocket a long pudding-bag, or canvas purse, and a rolling-pin, which are to be used *secundum artem*,
as

as exemplified in the course of the lecture. This, it must be acknowledged, as it is a more nice, so it is a more seemly method of discovering the value of malt, than that indecent *vulgar* mode of estimation, by chewing a large mouthful, and sputtering it over the cloaths of the by-standers, known by the more decent term of *mastication*.

SECTION III.

Contains a similar analysis of hops, “ shewing what parts are necessary to *con-* “ *serve the principles* of malt liquors, and “ *what to be rejected;*” by which expressions a novice would be led to imagine that we were at the pains of *picking and castrating* our hops, one by one, as a good housewife does plumbs for her Christmas puddings; but it is no such thing. Our *selecting* and *rejecting* is merely metaphorical, our *conservation* entirely imaginary. Nay, so far are people misled in judging from appearances, that a certain brewer, ignorant of *chemical theory*, and consequently of its effects, after having been at the pains to inspect all our beers, in the summer months, had the audacity to declare

E that



that we, too, had *sucked the wrong end of the asparagus*, in our choice of these *parts*, or had *conserved* the *principles* of our beer, to the destruction of the beer itself.

We are next told “ how their extract is
 “ best made in plentiful seasons, to be ad-
 “ vantageously applied in times of scarcity,
 “ with an easy practicable method of com-
 “ municating, in any degree, the fine fla-
 “ vour of hops to a gyle of beer ;” but as
 the making of this *extract* would be at-
 tended with *some inconvenience* to those
 who have not a chemical apparatus, the
 lecturer is always ready to furnish a pupil
 with a small cask, of a few gallons, by way
 of experiment, which will not amount to
 more than TWENTY GUINEAS ; a trifling
 expence, considering that it may probably
 last as many years ; for a very small quan-
 tity will *communicate a flavor* (I do not pre-
 tend to say, *of hops*) that will always pre-
 dominate on the palate, even though the
 beer should have stood till it were fit for
 nothing but to dissolve isinglass. This,
 too, will shew that the lecturer does not
 consider *the affinity of hops with other vege-*
tables, to no purpose.

SECTION

SECTION IV.

Leads to "the analysis of yeast, *hitherto* " *unattempted*, (in the language of wire-dancers and jugglers, a critic would " say) the constituent parts examined, and " *what they are which immediately promote* " *fermentation.*" This were certainly a very important piece of analytical information, if it did but account for that extraordinary circumstance of the yeast's entirely *wearing out*, in fermenting the same kind of beer for a number of successive gyles, which is an interesting particular to the brewer, as it often puts a quantity of bad beer into his cellars without his being able to account for it; nor can he discover, without a particular practice which the lecturer does not inculcate, when this circumstance happens, till perhaps the baker informs him his bread is *heavy*, whence the brewer may conclude his beer is in a somewhat similar condition, for there is heavy beer as well as heavy bread. This is often removed by the yeast of another brewer, though apparently worse in every respect, by which means the fermentation is carried

Is this true?

on to the desired perfection. It is a little unlucky, that the lecturer's theory does not extend to the clearing up this point, which occasions his roundly asserting its non-existence. But we can readily excuse the assertion in a person of such abstracted studies, which do not admit of these little attentions to common and indisputable facts; though this is one of those errors that dogmatical theorists and hobby-horsical philosophers often fall into, who will not *credit* what they cannot *prove*, and advances a kind of *damning proof* of the insufficiency of mere theory. That this circumstance frequently happens, in some situations, is beyond a doubt, but to account for it must be left to those who can inform the farmer why corn will not thrive in the same soil on which it grew, for a number of successive seasons.

This section concludes with the important matters of "preserving *nurseries* or "stores of yeast, several months in summer—and the best method of *curing* "yeast for exportation."—*Quorsum hæc?*—said a certain caviller—*Risum teneatis, amici?*

SECTION



SECTION V.

Teaches us the analysis of waters, and explains their principles, "so far as to direct the brewer in their choice and management." These directions, we are apprehensive, will be of no very great utility to established brewers, of whom there are but very few who have it in their power to make any *choice* at all, in their water, were they ever so much inclined. Besides, the obstinacy or selfishness of people in general is so predominant, that there are not many brewers to be found, who would have spirit enough to remove their offices from the side of a well to the bank of a river, or from the bank of a river to the head of a spring, even on the lecturer's particular recommendation of the water of either place. Then we have the rendering "hard waters soft, and soft "hard, in order to investigate their nature "and consequences in brewing." This is pretty enough, in a snug room, with a few half-pint phials, but brewers are so bigotted to their interest, that we should scarce find one that would be inclined to dip deep enough

enough into his account of profit and loss, in the purchase of sufficient quantities of acids and alkalis, to effect the desired mutations in a river, pond, or spring. Whence the inadmissibility of this into the practice of a brewhouse, is much to be lamented.

SECTION VI.

Includes the use of the *thermometer*, *hydrometer*, and *hydrostatic balance*. The general utility of the former of these, is obvious to every brewer, but its particular advantages are not so well known. The lecturer, on this subject, has very ingeniously struck out a new path, widely deviating from the grand turnpike road in which others have so long travelled, if they will not cut short their journey and follow his steps, he must e'en wander by himself — *humanum est errare*. Of the two latter instruments, it is enough to observe, that they determine specific gravities; let the ingenious artist make the application. Of “the consequences of *capping the malt*, and “*piecing the liquor*,” as the lecturer has thought proper to say *something* about *nothing*,

thing, we shall take the liberty of passing it over without saying *any thing*.

The conclusion of this section insinuates that we should “extract the necessary contents of malt by *infusion*, and hops by “*decoction*.” This is indeed a discovery of the greatest importance to the brewery. Had it not been for this information, who knows but we might have mashed the hops, and boiled the malt in the extract? It is certain that such things are not commonly done; but sometimes an old country dame, by *galloping* half a peck of malt in a large kettle, has produced *small beer* for her family, nearly upon this principle; and as we always pay great deference to the sex, it is possible that we might have adopted the good housewife’s plan, in the brewing of *strong*, had we not been *better instructed*.

The vast importance of the “*attempt* to “extract worts from malt *without mashing*,” as it does not mean to extract without *mixing*, will occur to every one, who is informed that the number of men employed in *mashing*, must be kept, whether they *mashed* or not, and few masters
have

have any objection to the keeping their men *employed*, when they are obliged to keep them in pay.

SECTION VII.

Commences the subject of *fermentation*; and it is not without reason that the lecturer terms it a *very intricate and interesting phænomenon*. We are entirely of the lecturer's opinion, and think the epithets judiciously applied. It is so *interesting* that the brewer's produce must here receive its distinguishing excellence, nor can it be good, if this be ill-conducted; and it is intricate as the labyrinth of Crete, as is evident from the lecturer's having unfortunately taken hold of a wrong clew, whence he is in the utmost danger of being for ever bewildered, if not at last suffocated in his own *compressed* atmosphere. He says, indeed, that he has "thrown some *new lights* upon that very intricate and interesting phænomenon," but some who are skilled in the doctrine of meteorology, have asserted that they are *false lights*, the *ignes fatui* of a bewildered imagination. A gentleman of our acquaintance, who has been somewhat

somewhat unsuccessful in pursuing this mode of fermentation, declares, in pretty positive terms, “ That his pseudo-demonstration of the *superior utility and perfection of COMPRESSED to open fermentation*, is entirely hypothetical, and, what is much worse, absolutely fallacious ; for repeated and fatal experience has convinced one, beyond the shadow of a doubt, that this *compressed mode* is incompatible with the laws, and repugnant to the very essence and end of fermentation ; and in several modes of practice, requisite for particular characteristical beers, it is not at all practicable to produce a real fermentation upon this principle of *compression*. This I speak from conviction, and can evince by experiment. Whence I am naturally led to *disprove* what the lecturer professes to *prove*, with respect to the *cleansing upon stillions*, which he asserts to be *injudicious, prejudicial to the product, and inconsistent with the natural laws of fermentation* ; all which I do positively deny, and, in my turn, do confidently assert, that it is as judicious, advantageous, and consistent, as to dress corn after it is thrashed, or to bolt

the flour after it is ground ; nor is it in the nature of things, in the processes I allude to, and which have not yet come within the scope of the lecturer's *experiments*, to make perfect beer by any dissimilar mode. His curious collection of *glass fermenting* and *yeast vats* is, therefore, only fit to make experiments of their malleability, and his *whole doctrine of practical fermentation* not worthy the attention of a pause between puff and puff of a Quidnunc's pipe. After this gentleman, who is a man of no superficial understanding, has said so much on the subject, it would be impertinent in us to attempt a further illustration.

SECTION VIII.

Brings us acquainted with the grand cause of the lecturer's laborious researches in the brewing business, viz. " the CLOUDINESS of beers." It was to remedy this disgraceful property that he first assumed the white apron ; and he has made so rapid a progress in the science, and is arrived at such amazing adroitness in the art, that he has all the mysteries of cloudiness

cloudiness at his finger's ends. He can make cloudy beers bright, and bright beers cloudy, *at pleasure*; and this only by a gentle tap with the magical wand, a slight *puff* with his breath, and the mystic utterance of *vade! change! quick! be gone!* Here, indeed, there happens to be an unlucky fact within our knowledge, that seems to give a death blow to this supposed principle of cloudiness, on which the lecturer founds his most important hypothesis; this is a mode of practice that includes, in a more eminent degree than he can conceive, the very essentials of cloudiness, according to his system, and yet produces a liquor spontaneously pellucid, sparkling, and high-flavoured. We do not know whether any serious people would approve of our practice, because it favors of *Beelzebub casting out devils*, or that more modern policy of *setting one knave to catch another*; for we include all the lecturer's first principles of cloudiness in one part of the process, and then call in the assistance of the remainder, in order to set them all together by the ears, till by reciprocal action they destroy each other. This, too,

is



is effected by a method of which the lecturer cannot, and, we are of opinion, not five people in the kingdom can, have any idea, it is so opposite to the general mode of all who have written of, or given instructions in, the brewing business. Nor is it to be wondered at, that the lecturer obstinately and dogmatically denies the existence of the most excellent and advantageous, because the most difficult and uncommon part of it ; for

Obstinacy's ne'er so stiff,

As when 'tis in a wrong belief.

Cloudiness, however, is an evil more easily prevented than remedied ; and tho' we have seen much beer, brewed upon the lecturer's principles, turned cloudy after it had been transparent, we cannot charge our memory with an instance where his *cheap and salubrious matters* have had the desired effect, in removing this ill-favoured property. This, however, we would rather have attributed to the treachery of our memory, than to any other species of deceit in persons or things.



Opens with a dissertation upon isinglass, which includes a very *important* piece of information, viz. *the best practical methods of converting it into FINING*. Why the lecturer dwells upon this subject, is the more extraordinary, as the grand end of of his system of *transparency*, in which he even presumes upon infallibility. Where, then, is the use of precipitants? and why must we turn out of our way to combat with the *stubborn clouds* of darkness, at the time he is leading us on in the high road to *certain pellucidity*? We know of no other means of reconciling this apparent inconsistency, than by supposing that the lecturer, to convince his pupils of his integrity and disinterestedness, provides this *double security* for the transparency of their beers. If the *personal* security of his *head* should fail of the desired effect, there remains the *effectual* security of his *hands*, he being a manufacturer of isinglass, from which every thing is to be hoped; thus does he render most essential services to his pupils, without omitting to keep a *steady*
eye

eye upon his own duple profession of beer-lecturer and ifinglass-monger.

We are next presented with an examination of *the constituent parts of the most celebrated beers* ; then we have “ the proportion of their spirituous with their grosser parts compared, with a view to trace out *what and wherein consists their different character and merit*, with respect to *their strength, flavor, and colour.*” This examination is certainly very *curious*, and not a little *interesting* ; since by that we have been able to discover, that the constituent parts of the celebrated beers made at Ringwood, Dorchester, Burton, &c. are (we must out with the secret) the dissoluble parts of a certain preparation of barley, called *malt*, with those of the fruit of a certain aromatic plant, called *hops*, the menstruum of which is that simple element called *water*, and the blending, incorporation, combination, or commixtion of the whole, is effected by a certain chemical process, called *fermentation*. Now, gentle reader, thou may’st set to work, and make all these *celebrated beers* as fast as thou art able ; especially if we should add, to this
piece

piece of information the subsequent secret of their *strength, flavor, and colour* ; the former of which we do assure thee, is to be attributed to a large quantity of malt, the next is principally derived from the most fragrant part of the hop ; and the last owes its existence to the regulated action of the inflammable principle, vulgarly called, fire. If the lecturer has found out chemical succedanea for the common constituents of these qualities, it is an after discovery, the effect of a more intimate acquaintance with *mundungus, wormwood, and molasses*.

The *diseases of the cellar* are the next objects of consideration, which are noted under the several heads of “*staleness, flatness, ropyness, mustyness, stibborness, fretting, &c. &c.* with the best methods of “remedying these disorders by wholesome “means.” We have only to remark, in this place, that certain errors which have escaped the lecturer in the building of his system, and which we have before had occasion to allude to, are generally productive of the last of these diseases, which is immediately succeeded by the first, which is often the cause of the second, and sometimes

times of the fifth. The real cause of *ropynefs* does not come within the bounds of the lecturer's instructions, neither does the remedy as yet seem numbered amongst his scientific acquisitions; and as to *musty-ness*, seeing it is derived from the cask, it did not need any great sagacity to have discovered the propriety of that hacknied remark—*causa sublata tollitur effectus*; or, in plain English, *you need not fear musty liquor, if you keep your vessels sweet.*

The uses of the new-invented PROOF-GLASS now solicit our attention. To discover this secret, we must confess, our curiosity stood on tip-toe, as much as ever did fair lady's to pry into the mysteries of free-masonry. But ever since we have known it (forgive us chymistry) we have never reflected on it but the idea of the bottle-conjuror has started up in our imagination. This, perhaps, the lecturer would account for, by the similarity of the *component parts* of a proof-glass to those of a quart bottle, which may have occasioned such a concatenation of vitreous ideas in our pericranium, that we no sooner call up the idea of a proof-glass than that of a glass-bottle

bottle follows it; but there are ill-natured persons who would rather attribute it to an association of ideas occasioned by a similarity of circumstantial facts, and perhaps extend it even to personal assimilation.

Yet it is but impartial justice to declare, that our expectations, in the mere novelty of the term, had been raised to such a pitch, that on having its *uses* explained to us, we could not help exclaiming in the words of Horace,

Parturiunt montes; nascetur ridiculus mus!

Whether this might have been occasioned by the extravagance of our expectations, or whether there is a real insignificance and palpable imposition in the *proof-glass*, we cannot pretend to decide. We are parties in this affair, and the law will not admit our evidence.

SECTION X.

Presents us with the most marvellous malt product, that ever was brew'd in the head, or issued from the hand of refined projector, under the title of *extract* or *rob*: an improvement in the art of brewing most assuredly the greatest that has ever yet

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been

been made, and far exceeding every thing which it hath enter'd into the heart of man to conceive. It is of such importance, and is capable of such perfection, that, we are of opinion, the fermentable matter of fifty quarters of malt and a bag of hops, might be reduced into a volume capable of being contained in a tobacco box ; so that every foldier doing duty abroad, might carry in his pocket the materials of as much beer as would serve him ten years, supposing him to drink three or four gallons a day. The convenience to gentlemen that travel, is as obvious ; since, upon this calculation, a tooth-pick case would contain enough to supply one table with beer throughout the whole *grand tour* ; and it may be made of any strength, from *flaming bogan* down to *bumble sixes*, for the lecturer says, it may be “ rediluted and fermented into malt liquor of “ *any assigned degree of strength* in any part “ of the globe.” But it may be advisable for every gentleman to *take a lecture* before he sets out, in order the better to qualify himself for the redilution and fermentation, to accomplish the latter of which,
it

it may be necessary to be provided with a small gallipot of *pickled yeast*, from the lecturer's conservatory, or yeast-nursery, treated of in the fourth section.

A further advantage accruing to the nation from the discovery of this *extract* or *rob*, is its excellence as an *antiscorbutic*; so that if it should hereafter appear that the board of admiralty has neglected to furnish each of the sailors of the royal navy with a pouch full of it, the noble lords may expect to be impeached for their neglect, upon the credit of the lecturer's evidence, as the eventual cause of every man's death, whom the *marine scurvy* shall occasion to be sewed in his hammock, and tossed over board.

A hypercritic would, indeed, be apt to ask what analogy there is between medicine and malt liquor, that the *cure of the scurvy* is foisted into the *art of brewing*? He would perhaps enquire, with a sneer, whether the lecturer had the honour of a seat in the college of physicians, and clinch it with the observation that *it smells of QUACKERY*. But let such incorrigible blockheads carp on. There is no driving

conviction into the impenetrable skull of a man who cannot distinguish *patriotism* from *physic*.

We come now to “the best methods
“ of preparing certain effectual and whole-
“ some *colouring matters* for beer, &c.”
which the lecturer, on more mature deliberation, thinks most adviseable—to keep to himself; generously considering, that he can furnish you with it on better terms than you could prepare it, *if you knew how*. This is still keeping a *steady eye* upon his own *particular business*, at the same time that he is consulting the ease and advantage of his pupils; wisely reflecting that the mind crouded with too many objects, would be in danger of falling into such a state of confusion, as might be destructive of some of it's most interesting and important ideas; the suppression therefore, of some parts of his under-plot, gives greater scope to the action of his principal parts, and the more readily promotes the business of his grand design. The same observations might be made on his *inebriating additions*; concerning which we know nothing more than that they have been material promoters

promoters of *Hob or NOB*; which terms are purely technical, and are not to be mistaken by the common convivial acceptance; being, *inter nos*, a kind of hellenism, of which unlectured brewers can only say *Græcum est, non potest legi.*

SECTION XI.

“Explains to us the best *construction*,
“uses, and advantages of *large store vats*.”

We can not help observing, in this place, how deep learning refines, even upon the most obvious circumstances in life, and the most self-evident matters in nature. Now the lecturer has found out certain uses and advantages in certain particular *constructions* of store vats, whilst the most experienced connoisseur in malt liquors would have been puzzling his brains to no purpose, to have determined, by the complexion, flavor, or effects, the difference between beers, brewed in the same place, and upon the same principle, kept in vats of a parabolical, conical, or cylindrical construction, or even in squares, pentagons, hexagons, heptagons, or octagons. But the delicacy of the lecturer's taste is
such

tuch, that he can in a moment distinguish which is a circular, and which is an angular flavor, &c. without hesitation.

If it should be asked how the lecturer came acquainted with the *uses and advantages* of LARGE STORE VATS? It may be answered, that he has a number of glass ones, which hold from *three* to *four* or *five quarts* each, by which he is certainly very capable of judging, to the greatest nicety, of the effects of those which contain *fifteen hundred barrels*.

With respect to “the best methods of brewing malt liquors in a view to arrive at *early perfection*,” it must be allowed that the lecturer has, in that, the honor of disputing the palm with the expert landladies of Suffolk and Essex, who will purchase malt in the evening, and produce the tankard foaming with the racy beverage, for the next day’s dinner. And when he adds, “to remain long in a *sound state of preservation*,” we must endeavour to corroborate the assertion by an appeal to a certain gentleman, in a large maritime town on the Hampshire coast, who has filled several vats upon the lecturer’s principles

ciples of brewing; by which means he was enabled to drive a considerable trade with the London brewers, who had the misfortune to find their beers *too sound*, and who by the commixtion of a small quantity of his with their's, gained five or six months upon the palate of the consumer. This extension of his trade, we can nevertheless assure that gentleman, with confidence, is not to be attributed to his *store vats*, but to his *process*.

We have next “a certain and effectual
 “method to suppress or regulate, *at pleasure*, the *fretting disposition*, or *tendency to acidity*, of malt liquors in large store-
 “vats, during warm weather, described
 “by *models and experiments*.” Now if the gentleman we have just alluded to, and some others of the lecturer's pupils, have not been able to stop this *fretting disposition and tendency to acidity* in their vats, nor even in their barrel casks, it can only have arisen from a want of a little arithmetical calculation, in order to have ascertained the requisite force, for that purpose, in vessels of a known content, according to the force employed in stopping the *fretting* of their
 standard

standard measure, *a quart bottle*. For instance; if they had reflected that a barrel of beer contains 36 gallons, or 144 quarts, and had denominated the given force 5, it must immediately have occurred to shew, that as $1 : 5 :: 144 : 720$, or the requisite force for a barrel; and, by the same learned rule, we shall find, as $1 : 720 :: 500 : 360000$; which demonstrates that 360000 is the force that must be employed to *stop the fretting* of a store vat of 500 barrels. This, too, is as evident as that it requires more powder and ball to defeat an army, than to shoot a highwayman.

Fermenting vats, which come next in rotation, we have sufficiently illustrated, in what has been observed of the *seventh section*; to which we need only add, “ that the increased *generation* of spirituous parts,” which the lecturer asserts to be the offspring of this *cobabitation* of must and vat, has been said by some to be a *generation of vipers*, not unlike those described by Milton to result from as preternatural a connection. But perhaps a better idea of the nature of these *generated spirits* may be conveyed,

conveyed, by reminding the reader of those *spirits* which the gloomy procure by the bottle, and the debauchee by provocatives.

The uses of the *dome copper* can best be attested by an eminent brewer not many miles from the Borough, and another at Cambridge, who, we are of opinion, are the only two who can speak of these from experience, and who will do the lecturer the justice to affirm, that from this part of the lectures, at least, they have received *no injury*.

The *fermenting valve* is somewhat like rope-ladders, or canvas spouts, to escape from houses on fire, where prevention would have been the most effectual safeguard, and where the best remedy is desperate.

The *yeast vat*, being only the obstetric receiver of the abortion procured by the fermenting vat, we can do nothing more with than resign it to it's proper office and station—*pares cum paribus*.

SECTION XII.

Does little else than cause us again lightly to tread the mazy round, and lead

H forward

forward the children of the lecturer's labors, "to rescue this curious and valuable branch of business from the hands of ignorance and delusion, to the reputation and profit of the brewery, and universal benefit to the consumer." And, as the lecturer has here finished the performance of the grand part he had undertaken, and is about to quit the stage, we hope our readers will take care that his exit be attended with that *eclat* his great merit demands, which we cannot but recommend, in the words of Terence.

Nil prætermissum est : ite hac : vos valete et plaudite.

Now, lest some ignorant or deluded persons should be led to imagine, from some few things which we have here occasionally advanced, that we have *profited* nothing from the lectures we have treated of, and thence inadvertently draw conclusions prejudicial to the lecturer's reputation, we have thought it necessary, nay incumbent on us, to declare to all such ignorant and deluded persons, that they will, by such unjust surmises, do a manifest injury to the great and patriotic designs of the lecturer, as well



well as retard and protract the cause in which we embarked, on our first entrance upon these remarks; and that, on the contrary, we have been much benefited by these discourses, which have very much tended to enrich the soil of our understanding, and meliorate the product thereof, which we can easily illustrate.

Didst thou never observe, gentle reader, in the sweetly-smiling month of May, a corn-field green and flourishing? or, if thou art a native of the metropolis, and hast made Islington and Bow the limits of thy peregrinations, thou may'st yet live to extend thy travels to where such sights are obvious to the eye. There, then, thou may'st see, amongst the tender blades of corn, certain luxuriant plants of quick and rampant growth, which spread their broad heads over the whole surface of the field, then noxious to the corn they hide. These the farmer, unknowing of their latent virtues, terms *weeds*; but with the learned botanist they bear the most respectable names of *xizanium*, *alsine*, *papaver*, *carduus*, &c. In their rapid progress to maturity, they far out-shoot the slowly rising corn, “fling their luxuriant bran-

"ches" o'er its head, deprive it of the sun's genial ray, devour the nurture of its root, and seem the legal owners of the soil they but usurp. At a distant view, the farmer's heart rejoices in the vivid verdure that smiles over his field, and already in idea sees the laden waggon bend beneath the heavy crop; but on a nearer inspection, he finds his hopes were founded on a false appearance, and views with a sigh these bold invaders triumphing over the proper tenants of the land. Then soon, behold! the busy hands of boys and women, with hooks and knives crop short the spreading race, whose juicy stems and tender foliage falling to earth, there generate heat, ferment, putrify, and become nutritious manure to the same corn they had before just choaked and stifled, which now shoots up more vigorous, from the corrupt mass mouldering at its root, and in due time shines forth a golden harvest.

Thus has our knowledge, in the business of the brewery, been enriched and invigorated, by the nutriment of *fermented lectures*, to which we certainly owe as many

many and as great obligations, as the farmer to his putrid weeds. Hence it were not, perhaps, inapposite to our purpose, to say with Virgil, when he criticized Ennius, *we have picked gold out of another man's dunghill.*

But as we have no such selfish intention, as the keeping this gold to ourselves, we have, in imitation of the lecturer, thought it adviseable to give this public notice of our patriotic purpose, to distribute it amongst such brewers as may stand in need of it; not in the happy florid stile of shameless quackery, nor yet in the more alluring language of *more learned empirics*; for Hermes has not yet sufficiently touched us with his wand, to authorize our claim to that expressive motto, for our discourses, *vox et præterea nihil.* We shall rather open our scientific sluices, and pour forth the stream of our brewing knowledge, in a

COURSE OF INSTRUCTIONS,

which we shall divide into *three parts*, and subdivide into various sections, as will appear by the subsequent

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SYLLABUS,

Part I.

As the perfection of beers, like that of most other products of art, greatly depends on the perfection of the materials from which they are to be made, we shall, in this part, instruct the brewer how to discriminate the good from the bad, and direct his choice to such whose particular qualities may be best calculated to succeed in the several intentions he may be solicitous of; for all materials will not answer all purposes, and some will answer none, that tend to good.

MALT, being the first grand principle, the essential constituent of beers, we shall instruct the brewer how to make it himself, and how to chuse it when made. In this he will not be indebted to the processes of *foreign parts*, our own kingdom amply supplying us with the best information in these particulars, and we have the advantage of deriving our knowledge from experience, and the communicated practice of eminent malsters, engaged in extensive trades, from some of the largest malt houses in England. In this, too, we
pique

pique ourselves upon the first practical introduction of the thermometer, the utility of which is so essential, that an important part of the process cannot be conducted with that assurance of success the brewer requires, without the aid of this instrument.

Hops come next under consideration; in treating of which the brewer will be informed, not what *parts* to select or reject, but what *sort* will best answer his purpose in the different objects of flavor and preservation. The same hops will not do for *porter* and *pale beer*, nor are their distinguishing qualities to be obtained by the same mode of extraction; for, as far as this vegetable is concerned in the characteristic flavors of beers, the processes whence we derive a peculiar flavor are so various, and sometimes so opposite, that what will produce the flavor of one kind of beer, will effectually destroy that of another. Hence the expediency of a knowledge of these different modes, to those who would wish to accommodate different palates.

This

This is all that is necessary for the brewer to understand, before we come to practice. We shall, therefore, conclude this part of our instruction here, having no inclination to say any thing of the *analysis*, *nursing*, or *preserving yeast for exportation*.

Part II.

We come now to the *brewhouse*, where we shall instruct the brewer how to make the most advantageous use of the *water* that supplies his office, rather than advise him to take his brewhouse up by the roots, to transplant it by a *crystal fount*, or *limpid stream*.

This subject naturally leads us to the *copper side*, where, some ill-natured London-brewers alledge, our lecturer never was in his life, which, to our certain knowledge, is an audacious falsity; for we have seen him by the side of one which holds 800 barrels, and which he uses for the manufacturing of *everlasting wood*.

We shall here shew the extreme utility of the *thermometer*; and, in case of an accidental want of that instrument, instruct the brewer how to calculate, by figures, any

any required heat. As this is a part of the process of the next importance to fermentation, and does in some degree govern that, it cannot be too much understood, nor too delicately managed; and, indeed, more is dependant on the operator, in this particular, than on natural operation; for if you begin in error, *sic stat*, so you must continue; whereas in fermentation a slight error may be rectified, or an accident remedied. By a judicious management of this, we form the various extracts, and lay the first foundation whereon to build the several characteristics of different beers. It is here we sow the seeds of the future product, and determine its more early or late period of perfection, as it may best suit the interest or convenience of the brewer. The other parts of the process must be governed by this, or the brewer's purpose will be defeated, and all his aims at perfection counteracted.

The *virtues of the hop* must be extracted in a greater or less degree, according to this leading principle, and in this the brewer must be taught to determine by the

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perception

perception of his senses, in many cases; where experience will convince him that formal rules are impracticable.

The *business of fermentation*, tho' last in order of the process, is eminently first in importance to the brewer, and the excellence of his product. Without a thorough *practical knowledge* of the several actions and appearances of fermentation, he is perpetually in the dark,

“ Troubled in mazes, and perplex'd with errors ;

“ The understanding traces them in vain,

“ Lost and bewilder'd in the fruitless search.”

Nor will he ever be certain of success, tho' a concurrence of fortuitous causes should, in a series of instances, produce effects apparently equal to those resulting from true practice and confirmed experience.

It shall be our business, in this place, to instruct the brewer how to conduct this most important article to that period of perfection, without which all his hopes of a superior liquor must fall to the ground, and all his dreams of pecuniary advantage evaporate in air; for when the fermentation is imperfect or ill-conducted, it is in vain to look for a perfect product. Here, again,

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again, it is from *experience* alone that the practitioner can be able to fix the true criterion of the process, so as not to *cleanse* too soon, nor too late, both of which are equally prejudicial to the beer; tho' productive of very different effects; for in this delicate and difficult particular the brewer's judgment is more exerted, than in any other single instance of the process, and words would convey but a faint idea of the matter, unaccompanied by the convincing testimony of the senses. Most of the *disorders of the cellar* hence have their origin, whilst the uninstructed brewer stands amazed at the effects of his own ignorance; sometimes laying the blame on his too-open cellarage, sometimes on the fickle climate, wishing for winter snows to allay the heat of summer suns, and attributing his misfortune to every cause but the right.

The business of *cleansing* is of much greater concern to the brewer than is generally imagined, which will lead us to be particular on that head, to convince him of the superior utility of cleansing on stillions, under proper management, to every

other mode, as has before been intimated in our remarks on the lecturer's *seventh section*.

Part III.

With the *store-cellar* we shall conclude our course of instructions. This is the concern of the brewer; and tho' from well conducted processes there will be but little business here, in the general run of the trade, yet there are particular situations that make it necessary to introduce *art* as the hand-maid to *nature*, to adorn her with graces not her own; if we would pay the proper attention to that *summum bonum* of the brewing trade, and indeed of every other, PROFIT.

Every place has its peculiar *taste*, on which are founded the several local ideas of excellence; whence it were absurd to think of so far conquering the prejudices of custom, as to establish a general uniform taste in all people. If the inhabitant of Burton is pleased with his sparkling *Burton Ale*, that of Chatham is no less satisfied with his scarce-liquid, whey-faced *Chatham Butt*. In one place a *mild*,
soft,

soft, full beer is preferred, in another a *light brisk* sort; some extol beer for its age, some prefer it when it has scarce done fermenting; and there are others who will drink it *quite stale*. Here it is the brewer's business to accommodate his practice to the palates of his consumers, in the manner most beneficial to himself.

Of these qualities, some are to be acquired in the brewhouse, some in the cellar. We shall only instance one, in which the brewer's interest is much concerned.

Where the reigning taste is for *old* (not *stale*) beer, it is a discouraging consideration, that the brewer must always keep a year's, and often a year and half's stock in hand, when all the requisite qualities may be acquired in beers of two months old, by a knowledge of the arcana of cellaring. This is very practicable, and the beer shall have all the flavor and spirituousity of age, with the briskness and fullness of mild ale; nor is this effected by *nostrums*, from which the brewer will never derive any benefit, but by a simple and easy practice, which at the same time that it produces these desirable effects, imparts

imparts to the beer the certain principles of preservation.

It is in the cellar we are taught to know, in what particular instances spontaneous pellucidity is required, and where it will be to the interest of the brewer to give it up. That this is an adviseable measure, on many occasions, is easily demonstrable; for some beers, which of necessity require precipitants tell most to the advantage of the brewer, both in the support of his credit and the weight of his coffers.

The *diseases of the cellar*, such as are really so, are very few, but their remedy is of importance. For other diseases, the consequences of bad practice, time is often the only and that an imperfect remedy. In some cases, none is to be hoped for, and the brewer must be content to make the best bad use of the effects of his own want of knowledge.

The *advantages of large store vats* are many and desirable, but by improper management, vexatious disappointments and heavy losses will fall to the brewer, instead of flattering successes and promised advantages. The *size* of these is not an unimport-

unimportant consideration, since the present, or probable future consumption ought to direct the choice, in order to avoid certain errors and inconveniences which might be the consequence of a contrary conduct. To preserve beers sound, for a length of time, in these store vats, a greater knowledge of their effects is necessary, than is to be acquired from mere speculation; and to continue their qualities perfect and unimpaired, after racking off into casks, is a secret in the breast of very few people, but which we shall here take upon us to discover.

Several other matters will be treated of, as the particular situation of the brewer may require; especially that very profitable part of the brewery, *exportation*. The several processes of the beers usually exported will be here shewn, as well as their management preparatory to their being shipped; to which will be added a general idea of that trade, and the peculiar characteristics the beer must possess on its arrival at the destined ports abroad, in order to suit the palate of the natives, and insure it an advantageous sale.

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The result of these instructions, if attentively considered and uniformly pursued, must be such an extension of trade and increase of profit, as may reasonably be expected to arise from a superiority of product. For *your advantage*, therefore, in the language of our lecturer, all ye who have been led astray and are wandering in the paths of error ! do we now open these our sluices of instruction ; from which, *if ye rightly receive these words, ye shall drink knowledge as out of a river.* But if, in contempt of these our learned labors, *ye shall harden your hearts in unbelief ; if ye shall hate the voice of wisdom, when she crieth unto you, and your heart shall despise reproof, then shall ye die without instruction, and in the greatness of your folly shall ye go astray.*

N. B. *These INSTRUCTIONS * are proposed to be given to as many persons, only, in a village as will pay for them ; in a large populous town, to no more than will agree to our terms ; and in a city, London not excepted, to all who want information in these*

* Vide conclusion of the lecturer's advertisement.

these particulars, and are willing to pay for it, according to our proposals.

No distinct agreement shall be made for our instructions on the ART OF BREWING PORTER, and those on AMBER, or PALE MALT LIQUORS; for we intend to put our pupils into the full possession of all our brewing arcana at once; and our terms are so admirably adapted to the trade of every brewer, that, as each pays according to the extent of his business, if he brews no beer he pays no premium.

The first person in application will be invariably preferred, agreeable to the old maxim of first come first served.

These instructions (really) result from many years study and practice. Those who may doubt the authenticity or experience of these improvements, shall be referred to several casks of beer of great eminence, in our cellars; so that, as the Bacchanalian song expresses it,

*If you doubt what I say, take a bumper and try. **

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Please

* Should this be thought a more decisive reference than that of our lecturer, still it ought not to be misconstrued to

Please to observe, that we do not HARDEN WOOD, having a more tender regard for the interest of back-makers, coopers, and ship-wrights, who ought not, in reason, to contend with Hamlet's grave-digger for the durability of their work, and holding in high estimation that well known, political aphorism which tells us, the strength of work is the decay of trade.

Letters addressed, postage free, to our bookseller, will be duly acknowledged. by

London A PRACTICAL BREWER.
December 11th. 1775.

to his disadvantage. Eminent divines do not always practice what they preach; and tho' the lecturer may never have condescended to make any good beer himself, as is also reported of a certain philosophical brewer *in quarto*, yet that makes nothing against his theory, since you are to mind *what he says, not what he does*; on the contrary, you are to mind *what we do*, rather than *what we say*.



